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Original Research Article

# Needs Assessment of Persons with Physical Disability for Community Based Rehabilitation in Rural Field Practice Area Patna

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**Abstract:**

**Background and Objectives**: Disability has been defined as "any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being". It is estimated by WHO that 15% of the world's population has some form of disability and 5% of the population in developing countries has one or the other kind of disability. To determine the needs of Adults and Children with physical disability with respect toHealth, Education, Social, Livelihood and Empowerment.

**Methodology**: This was a Mixed method study (quantitative through cross sectional and qualitative research technique through focus group discussion) carried out in 22 villages with a total population of 12669, under Rural Health Training Center Patna, attached to department of Community Medicine, PMCH and NMCH Patna. Study Duration of Nine Months.

**Conclusion**: Most of the persons with physical disability had unmet needs in health, education, livelihood, empowerment and social component under CBR matrix and the resources available in the study area are adequate for starting CBR programme.

**Keywords**: Persons with Disability, Community Based Rehabilitation, Needs assessment.



## Introduction

Disability has been defined as "any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being" [1,2] or the inability tocarry out certain functions or activities which are otherwise expected for that age / sex, as a result of the impairment [3,4]. It is an umbrella term for impairment, activity limitations and participation restrictions [5]. The world disability report estimates that there are over one billion people with disabilities in the world, of whom between 110 – 190 million experience very significant difficulties (WHO 2011) It is estimated by WHO that 15% of the world's population has some form of disability and 5% of the population in developing countries has one or the other kind of disability. As per Census 2011, in

India, out of the 121 Crore population, about 2.68 Crore persons are 'disabled' which is 2.21% of the total population. According to 2011 census, the total disabled population in Bihar is 1324205, out of which 264170 have visual disability, 235691 have hearing disability, 90741 have speech disability and 271982 have movement disability. Many people with disabilities do not have access to health care, education, and employment opportunities, and do not receive the disability related services which they require and experience exclusion from everyday life activities [6]. This to a large extent makes most special needs persons to become dependent on their family and the community by begging for alms or relying on others for their livelihood making life a miserable experience. A disabled person who is in the prime of his/her youth has every right to equal opportunity and must therefore be offered a range of assistance such as specialized equipment, library assistance, note-taking in class, render sign interpreters, and parking provisions. Toilets and resting areas should be modified for the convenience of disabled persons. Only when they have such a strong support system can they hope to lead normal lives [7]. Only 15 percent people living in urban areas and three percent people living in rural areascan avail rehabilitation service in India, total coverage according to Ministry of Social Justice and Empowerment is only 5.7 percent. Community based rehabilitation "is a strategy within general community development forrehabilitation, equalization of opportunities and social inclusion of all people with disabilities, implemented through the combined efforts of people with disabilities themselves, their families and communities, and the appropriate health, education, vocational and social services. India, many community members did not have access to basic sanitation facilities, putting their health at risk. The Indian government offered grants to families living in these areas to construct toilets. Funding the remaining amount was difficult for most people, particularly people with disabilities. A local nongovernmental organization – Mobility India – assisted people withdisabilities and their families to construct accessible toilets, Using existing community- based networks and self-help groups [6]. In 1994 the International Labour Organization (ILO), United Nations Educational Scientific and Cultural organization (UNESCO), and World Health Organization (WHO) produced a joint position paper on CBR in order to promote a common approach to the development of CBR programmes. Despite the progress made since then, many people with disabilities still do not receive basic rehabilitation services and are not enabled to participate equally in education, training, work, recreation or other activities in their community or in wider society. Those with the least access include women with disabilities, people living with HIV, persons with disabilities who are poor, people with severe and multiple disabilities, and their families [12]. Community based rehabilitation should be promoted to facilitate access for disabled people to existing services (WHO 2011) and community based rehabilitation as a strategy can address the needs of persons with disabilities within their communities. The first step in CBR strategy is planning, which includes identification of people with disabilities, assessing their needs and assessing local and external resources. CBR has been divided into 5 components – Health, Education, Livelihood, Empowermentand Social. The first step in CBR is to identify persons with disability and to assess the needs and resources of the community. Such needs assessment studies will be useful, which looksat the felt needs of the persons with disability and their families in India particularly the rural areas.

## Objectives

To determine the Needs of adults and children with physical disability with respect to Health, Education, Social, Livelihood and Empowerment.

To assess the existing facilities and resources for implementing Community BasedRehabilitation in the study area.

## Material and Method

This was a Mixed method study (quantitative through cross sectional and qualitative research technique through focus group discussion) carried out in 22 villages with a total population of 12669, under Rural Health Training Center Patna, attached to department of Community Medicine, Patna medical college and Hospital Patna and Nalanda medical college and Hospital Patna. Study Duration of Nine Months.

It caters to a population of 12,669. The training centers provide treatment for common ailments, maternal and child health services, school health services, minor surgical procedures, routine laboratory testsand referral services.

This study was carried out in all the 22 villages attached to Rural Health Training Center (RHTC) Patna rural district, which is also a rural field practice area All persons with physical disability residing in 22 villages under RHTC Focus group discussion involving caregivers of persons with physical disability, ASHAworkers of the subcenters, Anganwadi teachers, Junior health assistants (F) from RHTC Patna teachers and a political leader.

Caregivers of children with physical disability.

### Inclusion criteria

All persons with un-treatable visual disability, hearing disability, speech disability, combined hearing and speech disability, loco-motor disability, multiple physical disabilities and their caregivers, who were willing to participate in the study.

### Exclusion criteria

Those who were terminally ill and those with acute disability (following road traffic accidents) were excluded.

Universal sampling – all individuals with physical disability fulfilling the inclusion criteriawas included in the study.

For the purpose of this study, it was decided to include all the persons with physical disability residing in 22 villages under RHTC Patna, who satisfied the inclusion criteria. Details of the persons with physical disability was obtained from RHTC Patna, Village Rehabilitation Worker, Anganwadi centers and health workers in the study area.

There are 22 villages under Rural health training center with a total population of 12669. All persons with physical disability was interviewed to assess their needs. Focus group discussion was done involving persons with disability, caregivers of persons with disability, ASHA workers, Anganwadi teachers, school teachers and political leader, to assess the needs and to identify the existing facilities and resources available.

Nuclear family: A married couple and their children living together while the children are still regarded as dependents. Joint family: Two or more married couples and their children living together in the same household, where all the men are related by blood. Three-generation family: Representatives of three generations related to each other by direct descent living together.

Socio-Economic Status (SES)Socio-economic status was calculated using the Modified B. G. Prasad classification – 2018 .

**Table 1: SES Classification as per Modified B. G. Prasad Classification:**

| SES class | Modified B.G. Prasad Classification |
|---|---|
| Class I (Upper) | Rs. 6528 and above |
| Class II (Upper middle) | Rs. 3264 to 6527 |
| Class III (Lower middle) | Rs. 1959 to 3263 |
| Class IV (Upper lower) | Rs. 979 to 1958 |
| Class V (Lower) | Below Rs. 978 |

Type of physical disability
Measures accepted for rehabilitation (drugs, surgery, functional training, with aidor equipment, Traditional, No treatment
The felt needs assessment questionnaire has questions on all the elements of the CBR matrix. Each question was scored on a scale of 0 – 5 in order of importance as needs assessed by the person with disability or the caregiver at the time of interview. The maximum score that can be attained under health domain is 21, education domain is 13, empowerment domain is 12, livelihood domain is 12, and social domain is 12. An arbitrary cut off of 80% for each component was taken as being 'need satisfied' Disabled Peoples Organization**:** A Disabled People's Organization (DPO), is a united group that advocates for the rights of people with disability in order to influence decision makers in governments and all sectors of society. DPOs usually exist at the regional or national levels. **Leisure:** habits related to recreational activities or others practiced during an individual's free time (sports and games, arts and culture). Caregiver: A person who provides some type of unpaid, ongoing assistance with activities of daily living (ADLs) or instrumental activities of daily living (IADLs) to a person with disability

## Results

The present study was conducted in Rural field practice area of Patna, among 313 persons with physical disability, out of which 258 were adults and 55 were children (age less than 18 years). Results of the socio demographic profile and Quantitative assessment of the needs of the persons with physical disability based on questionnaire is described under the 5 components of CBR matrix in the first section. Needs of the children aged lessthan 18 years and those with communication disability were assessed using caregiver response, and the representation of the needs of the adults and children were done separately.

**Table 2: Distribution of educational status among study population (N=313)**

| Educational Status | Adults (N=258) n (%) | Children (N=40) * n (%) |
|---|---|---|
| Illiterate | 92 (35.7) | 18 (45) |
| Primary school | 120 (46.5) | 22 (55) |
| Middle school | 27 (10.5) | - |
| High school | 16 (6.2) | - |
| Pre university college | 2 (0.8) | - |
| Graduate | 1 (0.4) | - |
| Total | 258 (100) | 40 (100) |

*15 children were aged between 0 to 7 years

Most of the adults (46.5%) and Most of the children (40%) had primary school education. There were 15 children aged between 0 to 7 years and those were excluded as they can'tbe termed as illiterates.

**Table 3: Distribution of type of physical disability among study population(N=313)**

| Type of physicaldisability | Adults (N=258) n (%) | Children (N=55) n (%) |
|---|---|---|
| Visual | 40 (15.5) | 6 (10.9) |
| Hearing and speech | 57 (22.1) | 13 (23.6) |
| Locomotor | 135 (52.3) | 16 (29.1) |
| Cerebral palsy | - | 7 (12.7) |
| Sensory impairment | 16 (6.2) | - |
| Autism | - | 13 (23.6) |
| Multiple disability | 10 (3.9) | - |
| Total | 258 (100) | 55 (100) |

Majority of the adults (52.3%) and Most of the children (29.1%) had locomotor movementdisability.

**Table 4: Distribution of gender and type of disability in adults (N = 258)**

| Type of disability | **Gender** | | **Totaln (%)** |
|---|---|---|---|
| | **Female n (%)** | **Male n (%)** | |
| Visual | 18 (14.8%) | 22 (16.2%) | 40 (15.5%) |
| earing andspeech | 20 (16.4%) | 37 (27.2%) | 57 (22.1%) |
| Locomotor | 68 (55.7%) | 67 (49.3%) | 135 (52.3%) |
| Sensory impairment | 12 (9.8%) | 4 (2.9%) | 16 (6.2%) |
| MultipleDisability | 4 (3.3%) | 6 (4.4%) | 10 (3.9%) |
| **Total** | 122 (100%) | 136 (100%) | 258 (100%) |

Majority (55.7 %) of females and most (49.3%) of the males were found to have locomotordisability.

**Table 5: Distribution of responses by study population (N=313) according to theneed for rehabilitation services in the last 12 months.**

| RESPONSE | ADULT (N=258) n (%) | CHILDREN (N=55) n (%) |
|---|---|---|
| Got the services | 68 (26.4) | 16 (29.1) |
| Unable to get the services | 190 (73.6) | 39 (70.9) |
| Total | 258 (100) | 55 (100) |

Majority of the adults (73.6%) responded that they didn't get the rehabilitation serviceswhich they needed in the last 12 months. Majority of the caregivers (70.9%) responded that their children didn't get therehabilitation services which they needed in the last 12 months. School Teacher Response: Community and family support are important in order to include persons with disability in mainstream society*"* Response by Political Leader: The most pressing needs of the community are housing, income generating activities, and poverty elimination ,Response by PWD: There should be provision for separate queue in Ration shops and in hospitals for consulting doctors as we are being made to wait for long by other people in shops and hospitals*"* There should be boards in front of Ration shops which would clearly indicate how muchquantity of Ration they are eligible for availing from government. Many a times the shop owner has deceived us without letting us know the exact details" "I am not aware of the various Government schemes for the welfare of persons with disabilities"Care giver response: *"*I wish for a central trust that will take care of the needs of my disabled child after my death" The most common unmet

needs of the children were related to learning skills for future independence, meeting physical needs caused by impairment, and having someone to discuss their disability with. The most common unmet needs of the caregivers of the children were financial resources, help in planning the child's future, help with availing and utilization of available services, transportation of children to special schools and participation in community activities. Few Caregiver responses: "I have to fight for everything my child needs" I don't know what services are available to help me" I have to wait a long time in hospital for consulting doctor with my disabled child, there is no provision for separate que" I get to see different doctors in my different visits to hospital, I am not satisfied with it""They don't understand the difficulties i am facing in raising my child" I don't feel they are interested in helping my child" have so much pressure on me to carry out treatment and therapies with my child by myself" Agriculture and related occupations like cattle grazing are the major occupations of the village. Petty shops are owned by several residents of the village. There are bakers, fruit, vegetable, flower vendors. Tailors, drivers, barbers and chemists are also present in Kanasawadi. These occupations can be made available for the PWD so they can be integrated into the community and make them financially independent.

## Discussion

In the present study majority of the disabled adults (52.7%) were males and 47.3% were females. This may be because of higher mobility and large percent of males engaged in factory and heavy work where the environment is hazardous to health. In the present study majority of the children (58.2%) were males and 41.8% were females. Similar findings were obtained in the studies conducted by Abraham S in Kerala [8], Kulkarni A.S et al in Karnataka , Nimbalkar S et al in Western India, Gobalakrishnan C in Puducherry, Gudlavalleti M.V et al in south India , Jinming Zhang in China , AlAnsari A in Bahrain [9], Viripiromgool S et al in Thailand [5], Sauvery S et al in rural Nepal The present study finding was also similar to the disability statistics of Sierra Leone in 2015 where 54% were males and 46% were females . In a cross sectional study conducted in a rural area of Mysore city by Zama SY et al among 5832 study participants in the year 2016, sex specific prevalence rate was more among males in the rural area [7]. This is similar with a study done in Korea in 2011 by Hwang. B et al, where 45.9% of the people with disabilities have education only till elementary school (lowest school giving formal education), 42.6% had education less than high school and remaining 11.5% had graduate degree [10]. The present study finding is in line with the study conducted in Sierra leone in 2017, which stated that 63% of the children aged 3 years and above have never attended school and 24% have attained only basic education (16% primary and 8% junior secondary school). [11] The Study also mentioned that it is very difficult for persons with disability to continue their education after primary level [30]. The present study findings were also similar to the cross sectional study conducted in Bangladesh by Moniruzzaman.M et al, which mentioned 31.2% had received primary education, 22.5% had received no formal education and only7.9% had received education at the higher secondary and above level [12]. The present study had similar findings to the cross sectional study conducted by Kuvalekar. K et al among persons with disability where 46.9% had primary education and 24.6% were illiterate [13] .The findings of the present study were similar with the study conducted by Viripiromgool S et al, where 60.9% of the disabled population had primary education, In the present study 94.2% of the adults and 98.2% of the children with disabilities had unmet needs in

empowerment. In the present study 98.1% of the adults were not a member of any self-help group and none of the children / their caregivers were members of any self-help group (SHG). In a study conducted in Karnataka among 2332 persons with disabilities in 2013 by DeepakS et al, only 3.1% of persons with visual disabilities and 7.1% of the persons with physical disabilities were members of SHG.

Social component under CBR matrix: In the present study, FGD revealed there is poor awareness regarding the law, facilities, programmes and utilization of available benefits. Majority of them were not aware of DPO. According to a study conducted in India in 2000 by Pal H.R et al, According to Bawi S. V et al Education is of the utmost importance for PWDs in creating the foundations for social skills, academic skills, economic skills, independent living and vocational training [92]. In a study conducted among populations of low and middle income countries by Hosseinpoor A.R et al in 2012, education in inversely associated with disability rates [14]. The felt need of the participants was increasing awareness amongst caregivers of the disabled persons and the disabled individuals about the various services and benefits available for them from government. [15]

## Conclusion

In this study nearly half of the adults and one third of children had locomotor disability. Around half of the adults were using an aid or equipment as a measure of rehabilitation and nearly two third of the children were on medication. Nearly two third of the adults and children didn't get the rehabilitation services which they wanted and none of the Adults and none of Children has attended any special schools. 53.1% of the adults and 49.1% of the children has unmet needs in Health. 99.6% ofthe adults and 100% of the children has unmet needs in Education. 63.6% of the adults and 29.1% of the children has unmet needs in Livelihood. 94.2% of the adultsand 98.2% of the children has unmet needs in Empowerment. 70.9% of the adults and 94.5% of the children has unmet needs in the social component under CBR matrix.

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